

June 18, 2004

Mike Glasson, Environmental Coordinator
Andalex Resources, Inc.
6759 Airport Road
P.O. Box 902
Price, Utah 84501

Re: Mathis/Summit Creek Incidental Boundary Change, Andalex Resources, Inc.,
Centennial Project Mine, C/007/0019, Task ID #1919, Outgoing File

Dear Mr. Glasson:

The above-referenced amendment has been reviewed. There are deficiencies that must be adequately addressed prior to approval. A copy of our Technical Analysis is enclosed for your information. In order for us to continue to process your application, please respond to these deficiencies by July 6, 2004.

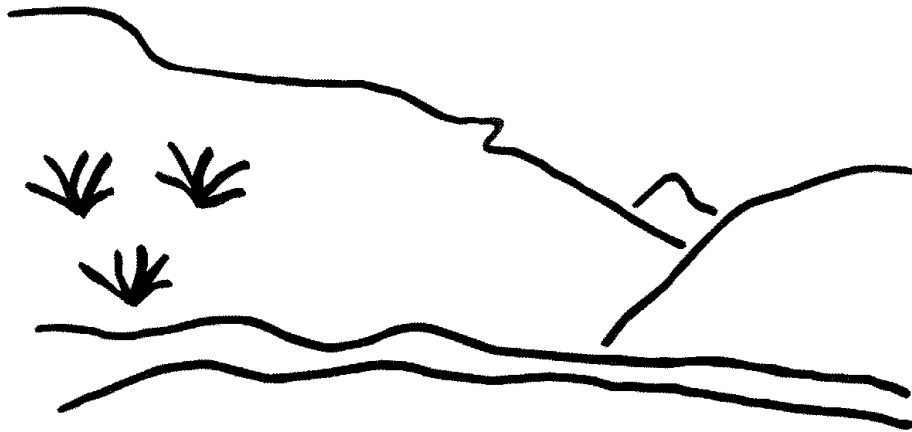
If you have any questions, please call me at (801) 538-5325 or Gregg Galecki at (801) 538-5260.

Sincerely,

Daron R. Haddock
Permit Supervisor

an
Enclosure
cc: Price Field Office
O:\007019.CEN\FINAL\DEF1919.DOC

State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Centennial Project Mine
Mathis/Summit Creek Incidental Boundary Change
C/007/0019, Task ID #1919
Technical Analysis
June 15, 2004

TABLE OF CONTENTS

INTRODUCTION.....	3
GENERAL CONTENTS.....	9
IDENTIFICATION OF INTERESTS	9
VIOLATION INFORMATION.....	9
RIGHT OF ENTRY	9
MAPS AND PLANS	10
ENVIRONMENTAL RESOURCE INFORMATION	13
VEGETATION RESOURCE INFORMATION	13
FISH AND WILDLIFE RESOURCE INFORMATION	13
LAND-USE RESOURCE INFORMATION.....	14
HYDROLOGIC RESOURCE INFORMATION	15
Probable Hydrologic Consequences Determination	15
OPERATION PLAN	17
MINING OPERATIONS AND FACILITIES.....	17
EXISTING STRUCTURES:	17
RELOCATION OR USE OF PUBLIC ROADS	17
COAL RECOVERY	18
SUBSIDENCE CONTROL PLAN.....	18
Subsidence Control Plan	18
FISH AND WILDLIFE INFORMATION	19
Protection and Enhancement Plan	19
Endangered and Threatened Species	19
Bald and Golden Eagles.....	19
Wetlands and Habitats of Unusually High Value for Fish and Wildlife	19
VEGETATION.....	20
ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES	20
SPOIL AND WASTE MATERIALS	20
HYDROLOGIC INFORMATION	21
Groundwater Monitoring	21
Surface Water Monitoring	22
Water-Quality Standards And Effluent Limitations	22
USE OF EXPLOSIVES.....	22
MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS.....	23
Affected Area Maps.....	23
Mine Workings Maps	23
Monitoring and Sampling Location Maps	23
Certification Requirements	24
RECLAMATION PLAN.....	25
GENERAL REQUIREMENTS	25
POSTMINING LAND USES	25
PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES...	26
BONDING AND INSURANCE REQUIREMENTS.....	26
Determination of Bond Amount	26
CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT (CHIA).....	27

TABLE OF CONTENTS

TECHNICAL ANALYSIS

TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977(SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings that comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference that describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

Page 2
C/007/0019
Task ID #1919
June 15, 2004

TECHNICAL ANALYSIS

INTRODUCTION

INTRODUCTION

On May 7, 2004, the Division of Oil, Gas, & Mining (Division) received an Incidental Boundary Change (IBC) for the Centennial Project / Tower Mine from Andalex Resources, Inc. The IBC is located in the Mathis tract (20 acres) and Summit Creek Lease areas (72.32 acres), respectively. The leases are located on the Deadman Canyon and Helper 7.5-minute quadrangle maps in Township 12 South Ranges 10 and 11 East, Sections 31 and 36. The additional 92.32 acres of the Mathis/Summit Creek IBC constitutes a 1.705% increase of the Centennial Project Permit Area. The additional acreage is for underground mining only and does not affect the disturbed area acreage. The proposed change is for underground mining only, which will take place beneath 2,600 to 3,000 feet of cover; no additional surface facilities are proposed. Surface effects such as subsidence and effects to the hydrologic regime are anticipated to be negligible. The proposed amendment is currently considered deficient. Modifications cited below need to be addressed prior to incorporation into the existing MRP.

Page 4
C/007/0019
Task ID #1919
June 15, 2004

INTRODUCTION

SUMMARY OF DEFICIENCIES

SUMMARY OF DEFICIENCIES

The Technical analysis of the proposed permit changes cannot be completed at this time. Additional information is requested of the permittee to address deficiencies in the proposal. A summary of deficiencies is provided below. Additional comments and concerns may also be found within the analysis and findings made in this Draft Technical Analysis. Upon finalization of this review, any deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the division, result in denial of the proposed permit changes, or may result in other executive or enforcement action and deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

Regulations

- R645-301-113.300**, A three (3) year history of violations preceding the application date must be provided for the applicant or any coal mining and reclamation operation owned or controlled by either the applicant or by any person who owns or controls the applicant..... 11
- R645-301-114**, Lease agreements to enter UTU-79975 Federal Lease and the additional area of the Mathis Tract Fee Lease must be provided for inclusion into Appendix J of the approved MRP. 12
- R645-301-140**, Plate 19A needs to include the vegetation community associated with the portion of the right fork of Summit Creek that is located in the lease area. A current raptor survey should be included in the application. As an alternative to the survey the applicant could provide a letter from The Division of Wildlife Resources depicting the status of any nests located in the proposed lease area. The Mule Deer, Elk and Sage Grouse ranges are also listed on plate 34. They are identified as lines but the extent of their ranges is not known. The extent of their ranges needs to be included on plate 34. They also need to be included in the legend. 13
- R645-301-320**, The application must include a current list of threatened, endangered, and sensitive plant species for Carbon County and the current status of those species in the proposed IBC area in order for the Division to make a finding that the information contained in the application meets the requirements of this section of regulations. 15

SUMMARY OF DEFICIENCIES

R645-301-322, -333, -342, and -358: The applicant must address these sections of the regulations.....	22
R645-301-322, The applicant must address this section of the regulations.	16
R645-301-333, -301-342, -301-358, the Applicant must address this section of the regulations.	30
R645-301-411, The application must include the missing information noted on page 4-1, Section R645-301-400.110 of the application.	17
R645-301-512, R645-301-512.110, Changes on Plate 29 and all other maps that fall under R645-301-512 need to be certified by a registered professional engineer. Some maps are certified but do not require certification under R645-301-512. Other maps that were modified must be re-certified. An option would be to state what changes were made after certification.....	27, 28
R645-301-525.110, On Plate 25 – Subsidence Monitoring Stations, provide the Aberdeen seam longwall plan (in a light scale – background) as illustrated in Plate 29.	21
R645-301-721, Figure 5 - Surface and Ground Water Rights of the Vaughn Hansen Associates report refers to the ‘Water Use Claim Number’ and the proper naming convention is the ‘Water Rights Number’	27
R645-301-724.300, On Plate 21 – Surface Geology, the strike and dip numbers should be included on the map. At a minimum, provide the strike and dip numbers in the legend.	27
R645-301-728.200, The Mine should consider including a representative number of the Water Rights in the water monitoring plan to accurately reflect actual flows; particularly the stock watering ponds.....	18
R645-301-731.212, -.222, -.222.2, Figure IV-11 needs the additional modifications in the legend: 1) the IBC needs to be correctly identified as the Mathis/Summit Creek IBC; 2) the symbol designation of streams and springs/wells needs to be included; and 3) all four (4) UPDES sites need to be identified.....	27
R645-301-731.212, Provide Table 3 from the Petersen Hydrologic report (not currently provided)	25
R645-301-731.212, The existing water quality information for springs B261 and B362 will need to be submitted electronically to the Division database.....	24
R645-301-731.222.2, Clarification needs to be provided in both the text and maps to how many UPDES sites exist and their location.	25

SUMMARY OF DEFICIENCIES

R645-301-731.223, Provide any existing data for sites B263, AC-1 and SC-1 electronically into the Division database. 25

Page 8
C/007/0019
Task ID #1919
June 15, 2004

SUMMARY OF DEFICIENCIES

GENERAL CONTENTS

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Analysis:

No new information was submitted for inclusion into this section of the existing MRP.

Findings:

The information contained in the approved MRP covers the additional acreage proposed in the IBC.

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Analysis:

No information updating the violation history contained in the MRP was submitted as part of the application. The information contained in the MRP is over three years old and outdated.

Findings:

R645-301-113.300, A three (3) year history of violations preceding the application date must be provided for the applicant or any coal mining and reclamation operation owned or controlled by either the applicant or by any person who owns or controls the applicant

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

GENERAL CONTENTS

Analysis:

Information on page 1-21 has been updated with the new legal description of the Federal Summit Creek Lease UTU-79975 (72.32 acres) and the addition to the Mathis Tract Fee Lease (20 acres). Appendix J of the MRP contains approvals of lease agreements and other approved activities. No documentation showing approval to enter the UTU-79975 Federal Lease or the additional area of the Mathis Tract Fee Lease was provided for inclusion into Appendix J.

Findings:

R645-301-114, Lease agreements to enter UTU-79975 Federal Lease and the additional area of the Mathis Tract Fee Lease must be provided for inclusion into Appendix J of the approved MRP.

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

The vegetation map is identified as plate 19A. A portion of the Right Fork of Summit Creek is included in the proposed IBC. The map should depict the vegetation community associated with the portion of the stream course that is located in the lease area. The wildlife distribution map is identified as plate 34. The map appears to have been generated in July of 1998. The map depicts the location of raptor nests at that point in time. A current raptor inventory should be included in the application. As an alternative to the survey the applicant could provide a letter from The Division of Wildlife Resources depicting the status of any nests located in the proposed lease area. The Mule Deer, Elk and Sage Grouse ranges are also listed on plate 34. They are identified as lines but the extent of their ranges is not known. They also need to be included in the legend.

Findings:

The information provided is not adequate to meet the requirements of the General Contents – Maps and Plans section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-140, Plate 19A needs to include the vegetation community associated with the portion of the right fork of Summit Creek that is located in the lease area. A current raptor survey should be included in the application. As an alternative to the survey the applicant could provide a letter from The Division of Wildlife

GENERAL CONTENTS

Resources depicting the status of any nests located in the proposed lease area. The Mule Deer, Elk and Sage Grouse ranges are also listed on plate 34. They are identified as lines but the extent of their ranges is not known. The extent of their ranges needs to be included on plate 34. They also need to be included in the legend.

Page 12
C/007/0019
Task ID #1919
June 15, 2004

GENERAL CONTENTS

ENVIRONMENTAL RESOURCE INFORMATION

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

The vegetation resource information is provided in chapter three of the MRP. Text changes for this IBC include page 3-1 of the Biology section of the application. The vegetation map is identified as plate 19A. The vegetation communities for the mine plan area include Mountain –Brush, Desert-Shrub, Pinyon-Juniper Woodland, Sagebrush-Grass, Conifer-Aspen, and Minor streamside vegetative types that cover the entire mine plan area. The vegetation community for this IBC is predominately Conifer-Aspen.

The application needs to include a list of possible threatened, endangered and candidate plant species identified in the U. S. Fish and Wildlife Service current listing for Carbon County. The application has not been updated to include these current listings.

Findings:

The information provided is not adequate to meet the minimum requirements of the Environmental Resource Information – Vegetation Resource Information section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-320, The application must include a current list of threatened, endangered, and sensitive plant species for Carbon County and the current status of those species in the proposed IBC area in order for the Division to make a finding that the information contained in the application meets the requirements of this section of regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

The application does not include Fish and Wildlife information as required by this section of the regulations.

Findings:

The information provided is not adequate to meet the requirements of the Environmental Resource Information – Fish and Wildlife Resource Information section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-322, The applicant must address this section of the regulations.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

The Land Use resource information is provided for on page 4-1 of the application. The 92-acre parcel is located 2,600 feet above the current mine workings. As such impacts to the surface land resources should be negligible.

The area is currently used for grazing, recreation and wildlife. Section 645-301-411.110 on page 4-1 indicates that Deadman, Straight and Hoffman Canyons would fall into two categories: 1) Fish and ????. The application needs to provide the remaining information that accompanies this section. According to the application the land has also historically been used for coal mining. By the early 1900's the majority of the Book Cliffs coal field had been prospected. Knight –Ideal, Zion, Olsen, and Sutton were mines that produced coal from the Gilson and Aberdeen coal seams. An additional prospect in the Sunnyside seam produced 1,400 tons of coal in 1964.

Findings:

The information provided is not adequate to meet the requirements of the Environmental Resource Information – Land-use Resource Information section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-411, The application must include the missing information noted on page 4-1, Section R645-301-400.110 of the application.

ENVIRONMENTAL RESOURCE INFORMATION

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Probable Hydrologic Consequences Determination

A Probable Hydrologic Consequences Determination (PHC) was prepared by Petersen Hydrologic (Inc.) for Adalex Resources, Inc., specifically addressing the Summit Creek and North Mathis tracts. The current IBC addresses only a small fraction of those two tracts. The determination is consistent with other findings along the Book Cliffs escarpment and Wasatch Plateau. Adverse impacts to the hydrologic balance in the area are extremely unlikely based on the combination of the following: 1) extensive cover (2,600 – 3,000 ft.); 2) extensive barrier walls between panels; 3) shallow groundwater systems and surface-water flows responding rapidly to climate and season; and 4) deep groundwater systems that are not in hydraulic communication with shallow recharge sources or shallow groundwater systems. The Division agrees with this assessment.

Using local streams and springs the PHC illustrates the shallow groundwater systems and surface-water flows respond rapidly to climate conditions and season. Specific R645-301 regulations that were addressed in the PHC include -728.200 (water quality and quantity), -728.310 (adverse impacts to hydrologic balance), -728.310 (acid- or toxic-forming materials), -728.331 (sediment yields), -728.333 (stream flow alteration), -728.334 (groundwater and surface-water availability), and -728.350 (affects to State-appropriated water).

Concerning State-appropriated water supplies, Figure 5 of the Vaughn Hansen Report – Appendix L outlines numerous ground- and surface- Water Rights; none of which are included in the Centennial water monitoring plan. It is important that the MRP acknowledges that if water replacement becomes an issue, Andalex will be responsible for replacement of the flow cited on the Water Right. The Mine may want to consider including a representative number of the Water Rights in the water monitoring plan to accurately reflect actual flows; particularly the stock watering ponds. There are examples in the Wasatch Plateau where local ranchers are blaming dry stock ponds on the mines below the area.

Findings:

The information provided is not adequate to meet the minimum requirements of the Environmental Resource Information – Probable Hydrologic Consequences Determination

(PHC) section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-728.200, The Mine should consider including a representative number of the Water Rights in the water monitoring plan to accurately reflect actual flows; particularly the stock watering ponds.

OPERATION PLAN

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

The current submittal proposes to add 93.32 acres to the Aberdeen Mine. The mine needed to add the IBC to accommodate a new longwall panel setup. The IBC would not significantly change the mine plan. There are no surface facilities associated with the IBC.

Findings:

The information submitted adequately addresses the minimum requirements of the Operation Plan – Mining Operations and Facility section of the State Regulations.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

There is no addition of existing structures within the proposed IBC area.

Findings:

The information submitted adequately addresses the minimum requirements of the Existing Structures Section of the regulations.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Analysis:

There are no public roads associated with the addition of the proposed IBC.

Findings:

The information submitted adequately minimum requirements of the Operation Plan – Relocation or use of Public Roads section of the regulations.

COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

Analysis:

The applicant needs the IBC in order to set up the longwall panels so that they can increase coal production. The coal that will be recovered is at a depth of 2,600 to 3,000 ft. The IBC will not decrease the amount of coal Andalex would recover.

Findings:

The information provided adequately addresses the minimum requirements of the Operation Plan – Coal Recovery section of the regulations.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Subsidence Control Plan

The existing subsidence control plan is sufficient to handle the IBC. However, in 2003 the Division fielded a complaint by a local landowner that their spring had dried up due to mining in the area. The Division's finding of no surface impacts due to mining was based, in part, on the Subsidence Control monitoring stations located in the area. However, subsidence control stations are not always ideally located. Information useful for evaluating surface subsidence would be to combine the Subsidence Monitoring Stations map with the longwall mining plan information.

On Plate 25 – Subsidence Monitoring Stations, provide the Aberdeen seam longwall plan (in a light scale – background) as illustrated in Plate 29. This will provide information to the validity of the location of the Subsidence Monitoring Station relative to potential areas of subsidence. Also, it will provide a useful tool to ground-truth any potential areas of subsidence.

OPERATION PLAN

Findings:

The information provided does not adequately address the minimum requirements of the Operation Plan – Subsidence Control Plan section of the State regulations. The following must be addressed:

R645-301-525.110, On Plate 25 – Subsidence Monitoring Stations, provide the Aberdeen seam longwall plan (in a light scale – background) as illustrated in Plate 29.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

The applicant has not addressed this section of the regulations.

Endangered and Threatened Species

The applicant has not addressed this section of the regulations.

Bald and Golden Eagles

The applicant has not addressed this section of the regulations.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

The applicant has not addressed this section of the regulations.

Findings:

The information provided is not adequate to meet the minimum requirements of the Operation Plan – Fish and Wildlife Information section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-322, -333, -342, and -358: The applicant must address these sections of the regulations.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

Vegetation should not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

Findings:

The information provided in the current MRP is adequate to meet the minimum requirements of the Operation Plan - Vegetation section of the regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

No new roads are associated with the IBC.

Findings:

The information provided in the current MRP is adequate to meet the minimum requirements of the Operation Plan – Road Systems and Other Transportation Facilities section of the regulations.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

The IBC will not alter the existing spoil and waste materials program. No modifications to the current MRP are necessary.

OPERATION PLAN

Findings:

The information provided in the current MRP is adequate to meet the minimum requirements of the Operation Plan – Spoil and Waste Materials section of the regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Groundwater Monitoring

No springs or seeps were sampled during the 2001 and 2003 surveys, which illustrates the dry conditions currently being experienced in the region. This is indicative of the shallow groundwater systems and surface-water flows responding rapidly to climate and season. During wet climatic conditions, groundwater naturally discharges from the Flagstaff and North Horn Formation in the area, although in small quantities for short periods of time. Seeps and springs in the area show rapid response to both season and climate, suggesting short flow paths and shallow circulation depths. This is illustrated by the lack of data for the majority of water monitoring sites in the area. Due to dry conditions, the little moisture that is received is critical to livestock and wildlife. Numerous water rights exist on stock ponds that are fed by springs or streams. It may be prudent to include documentation to whether any of the ponds retain water in the event subsidence does occur in the area.

A total of two (2) additional springs are proposed for monitoring as part of the current amendment. Spring B261 has a total of five (5) samples collected from 1996 through 2001. Spring B362 has only one (1) sample (May 2001) collected from 1997 through 2002. The existing water quality information for springs B261 and B362 will need to be submitted electronically to the Division database.

Page 8 of the Petersen Hydrologic report indicates tritium and radiocarbon data exists in Table 3. However, no Table 3 has been provided in the Division's copy of the report.

OPERATION PLAN

Surface Water Monitoring

During sampling in both 2001 and 2003 no springs, seeps, or streams were found to be flowing, likely demonstrating the current drought conditions and the ephemeral nature of the streams in the area. Of the three (3) proposed additional surface water monitoring sites, two (AC-1 and SC-1) are new sites with no baseline data provided; if these sites have had no flow, that information needs to be documented. It will be a few years before these two sites provide any useful information. Stream site B263 has been monitored since 1996 and has a total of 10 samples collected from 5/96 – 10/02. The existing data from site B263 will need to be input into the Division electronic database.

Water-Quality Standards And Effluent Limitations

There are areas in the existing MRP that need clarification concerning the UPDES monitoring locations. On Page 7-2 and 7-5 of the currently approved MRP, the plan indicates three (3) UPDES sites exist. However, according to the UPDES permit, 4 sites exist. Discharge apparently from the Pinnacle mine is not represented. Clarification needs to be provided in both the text and maps to how many UPDES sites exist and their location.

Findings:

The information provided does not adequately address the minimum requirements of the Operation Plan – Hydrologic Information section of the State regulations. The following must be addressed:

R645-301-731.212, The existing water quality information for springs B261 and B362 will need to be submitted electronically to the Division database.

R645-301-731.212, Provide Table 3 from the Petersen Hydrologic report (not currently provided)

R645-301-731.222.2, Clarification needs to be provided in both the text and maps to how many UPDES sites exist and their location.

R645-301-731.223, Provide any existing data for sites B263, AC-1 and SC-1 electronically into the Division database.

USE OF EXPLOSIVES

OPERATION PLAN

Analysis:

There are not surface explosions associated with the IBC.

Findings:

The information provided in the current MRP is adequate to meet the minimum requirements of the Operation Plan – Use of Explosives section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected Area Maps

The Applicant showed the new permit boundaries on Plate I. However, the new permit boundaries are necessary on several maps including Plate 21, Plate 22, Plate 25, Plate 29, Plate 34, Figure 4, Figure 5 and Figure 6. At a minimum the permit boundary lines should all be of the same line type and width. If the Applicant does not want to change the line type then they must note the change on the maps.

Mine Workings Maps

The existing and projected mine working map for the Aberdeen Seem, Aberdeen Mine, are shown on Plate 29. Regulation R645-301-512.110 requires the mine workings map to be certified by a registered professional engineer. Dan Guy certified the original Plate 29 but the map was not certified when it was revised on May 5, 2004.

Monitoring and Sampling Location Maps

On Plate 21 – Surface Geology, the strike and dip numbers should be included on the map. At a minimum, provide the strike and dip numbers in the legend.

Figure 5 - Surface and Ground Water Rights of the Vaughn Hansen Associates report refers to the 'Water Use Claim Number' and the proper naming convention is the 'Water Rights Number'.

OPERATION PLAN

Figure IV-11 needs the additional modifications in the legend: 1) the IBC needs to be correctly identified as the Mathis/Summit Creek IBC; 2) the symbol designation of streams and springs/wells needs to be included; and 3) all four (4) UPDES sites need to be identified.

Certification Requirements

Plate 25 was certified on July 18, 1998. On April 20, 2004, Plate 25 was modified but not re-certified. While the subsidence maps are not required certification, the P.E. stamp suggests that the map and all the revisions were approved by a P.E.

Findings:

The information provided does not adequately address the minimum requirements of the Operation Plan – Maps, Plans, and Cross Sections of Mining Operations section of the State regulations. The following must be addressed:

R645-301-724.300, On Plate 21 – Surface Geology, the strike and dip numbers should be included on the map. At a minimum, provide the strike and dip numbers in the legend.

R645-301-721, Figure 5 - Surface and Ground Water Rights of the Vaughn Hansen Associates report refers to the 'Water Use Claim Number' and the proper naming convention is the 'Water Rights Number'.

R645-301-731.212, -.222, -.222.2, Figure IV-11 needs the additional modifications in the legend: 1) the IBC needs to be correctly identified as the Mathis/Summit Creek IBC; 2) the symbol designation of streams and springs/wells needs to be included; and 3) all four (4) UPDES sites need to be identified.

R645-301-512, R645-301-512.110, Changes on Plate 29 and all other maps that fall under R645-301-512 need to be certified by a registered professional engineer. Some maps are certified but do not require certification under R645-301-512. Other maps that were modified must be re-certified. An option would be to state what changes were made after certification.

RECLAMATION PLAN

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The reclamation plan will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

Since there are no surface facilities associated with the addition of 93.32 acres, no changes to the engineering portion of the reclamation plan are needed.

Findings:

The information provided in the current MRP is adequate to meet the requirements of the Reclamation Plan – General Requirements section of the regulations.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The reclamation plan will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

Findings:

The information provided in the current MRP is adequate to meet the requirements of the Reclamation Plan –Postmining Land uses section of the regulations.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

The applicant has not addressed this section of the regulations.

Findings:

The information provided is not adequate to meet the minimum requirements of the Reclamation Plan – Protection of Fish, Wildlife, and related Environmental Values section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-333, -301-342, -301-358, the Applicant must address this section of the regulations.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

Because no changes to the surface facilities will result as a result of the addition of 93.32 acres for an incidental boundary change there is no change in the reclamation cost estimate.

Findings:

The information provided in the current MRP is adequate to meet the requirements of the Reclamation Plan –Bonding and Insurance Requirments section of the regulations.

CHIA

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT (CHIA)

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

Analysis:

The Division has evaluated the PHC provided by the Mine Operator and determined that the addition of the Mathis/Summit Creek IBC will not have an adverse affect on the cumulative hydrologic regime in the area based on the information provided and the analysis articulated above. The Cumulative Hydrologic Impact Assessment (CHIA), produced by the Division, will be updated in the near future. The update is not prompted by the proposed IBC. The assessment remains the same, however the CHIA has not been updated since 1990 and an additional 14 years of hydrologic data is available.

Findings:

The information provided adequately addresses the minimum requirements of the Cumulative Hydrologic Impact Assessment section of the State regulations.